

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
27 October 2005 (27.10.2005)

PCT

(10) International Publication Number  
**WO 2005/100247 A1**

(51) International Patent Classification<sup>7</sup>: **C01F 11/04**, C04B 2/04, B01F 3/06

(21) International Application Number: PCT/IB2005/000385

(22) International Filing Date: 16 February 2005 (16.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: PA200400601 16 April 2004 (16.04.2004) DK

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

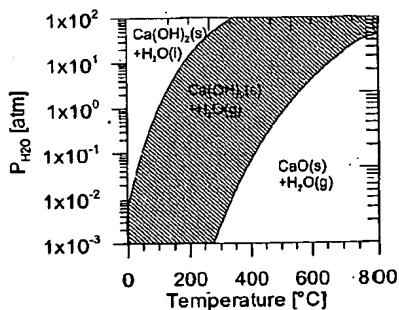
Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR HYDRATION OF A PARTICULATE OR PULVERULENT MATERIAL CONTAINING CAO, HYDRATED PRODUCT, AND USE OF THE HYDRATED PRODUCT

$$6,85 - \frac{5459}{(T + 273)} < \log P_{H_2O} < 5,45 - \frac{2032}{(T + 273)} \quad (I)$$



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(57) Abstract: Described is a method as well as an apparatus for hydration of a particulate or pulverulent material containing CaO. The method is peculiar in that water is added in a quantity which will ensure that the partial pressure  $P_{H_2O}$  of the added water as a function of the temperature (°C) is maintained within the interval defined by the formula (I), where  $P_{H_2O}$  is the partial pressure of water vapour in atm. and T is the temperature in °C. Hereby is obtained that the material particles do not lump into agglomerates, and that the particles are hydrated evenly from the outside and inwards so that it is the active surface of the material particles which undergoes hydration in connection with partial hydration. This is due to the fact that the liquid water will not get into contact with the material particles since the water will appear in vapour form within the specified interval.